

Amdt. dated Aug. 19, 2003
Reply to Office action of May 19, 2003

Serial No. 09/378,648
Docket No. BO999032
Firm No. 0036.0047

REMARKS/ARGUMENTS

Applicants submit herewith formal drawings including corrections to matters of form requested in the Notice of Draftperson's Patent Drawing Review dated October 6, 1999.

The Examiner found that claims 4, 5, 8-13, 18, 19, 22-27, 31, 32, and 35-40 would be allowed if rewritten in independent form to include the requirements of the base and intervening claims. Applicants have amended allowable claims 4 and 31 to include the requirements of the base claims to place in condition for allowance. Claims 5, 8-10 and 32 are now in condition for allowance because they depend either directly or indirectly from one of amended claims 4 and 31. Applicants submit that claims 12, 13, 18, 19, 22-27, 31, and 35-40, which are not currently amended, are patentable over the cited art because they depend either directly or indirectly from independent claims 1, 14, and 28, which are patentable over the cited art for the reasons discussed below.

1. Claims 1, 3, 14, and 28 are Patentable Over the Cited Art

The Examiner rejected claims 1, 3, 14, and 28 as obvious (35 U.S.C. §103) over Falk (U.S. Patent No. 5,760,913) in view of Wang (U.S. Patent No. 5,854,882). Applicants traverse for the following reasons.

Amended independent claims 1, 14, and 28 concern managing calibration files in a printing system and require: printing patches using a screening algorithm and incorporating at least one output appearance factor; generating a calibration file from measured color values of the printed patches mapping a color space for the printed patches to a color space of a printer used to print the patches; and associating information with the calibration file indicating the printer and at least one output appearance attribute for use in selecting one calibration file to use when printing a print job, wherein the output appearance attribute provides descriptive information on at least one output appearance factor incorporated when printing the patches.

Applicants amended claims 1, 14, and 28 to require that the output appearance attribute provides descriptive information on at least one output appearance factor incorporated when printing the patches to further distinguish over the cited art.

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The Examiner cited col. 3, lines 55-65 and col. 6, lines 5-65 of Falk as teaching the claim requirement of associating information with the calibration file indicating the printer and at least one output appearance attribute for use in selecting one calibration file to use when printing a print job. (Office Action, pgs. 3, 4, and 5-6) Applicants traverse.

The cited col. 3 of Falk discusses printer components. The cited col. 6 discusses calibration data 204 in a data file that when printed produces a calibration image, where the calibration image has color component color patches. The patches are printed as a calibration image. The cited col. 6 further mentions that the calibration system may have an invert option to print calibration patches in a mirror image.

Although the cited Falk discusses a calibration system and printing patches, nowhere does the cited Falk anywhere teach or disclose the claim requirement of associating information with the calibration file indicating the printer and at least one output appearance attribute for use in selecting one calibration file to use when printing a print job, where the output appearance attribute provides descriptive information on at least one output appearance factor incorporated when printing the patches. Instead, the cited Falk just discusses calibration operations, not associating the claimed specific printer and output appearance attribute information with the calibration file as claimed.

Accordingly, amended claims 1, 14, and 28 are patentable over the cited combination because the cited references, alone and in combination, do not teach or suggest all the claim requirements.

Claim 3 depends from claim 1 and further requires that at least one output appearance factor is a member of a set of printing variables consisting of: toner, paper type, environmental factors, desired output, and target printer to emulate. Claim 3 is patentable over the cited art because it depends from claim 1, which is patentable over the cited art for the reasons discussed above.

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2. Claims 2, 6, 7, 16, 20, 21, 29, and 33 are Patentable Over the Cited Art

The Examiner rejected claims 2, 6, 7, 16, 20, 21, 29, 33, and 34 as obvious over Falk and Wang in view of Lee (U.S. Patent No. 6,266,155). Applicants traverse for the following reasons.

First off, claims 2, 6, 7, 16, 20, 21, 29, 33, and 34 are patentable over the cited art because they depend from one of claims 1, 4, and 28, which are patentable over the cited art for the reasons discussed above.

Claims 2, 16, and 29 depend from claims 1, 14, and 28 and further require that the associated printer information indicates the name of the screening algorithm used in generating the calibration file. The Examiner cited col. 4, lines 24-48 of Lee as teaching the requirements of these claims. (Office Action, pg. 7, 9, 10) Applicants traverse for the following reasons.

The cited col. 4 of Lee discuss how the actual grey level produced by the printer may vary from the requested grey level. Lee discusses how the user may print image and text and adjust print factors such as density until the proper result is achieved. The user may also transfer the image to a second printer. Lee discusses how to account for printer-to-printer variations in output in dot gain and other factors.

Nowhere does the cited col. 4 of Lee anywhere teach or suggest associating information with a calibration file information indicating the printer and at least one output appearance attribute, where the printer information indicates the name of a screening algorithm used to generate the calibration file. The cited Lee discusses how to adjust printer density to improve the image quality. Nowhere does the cited Lee teach or suggest how to associate printer information indicating the name of the screening algorithm used to generate the calibration file as claimed.

Accordingly, claims 2, 16, and 29 provide additional grounds of patentability over the cited art because the cited art does not teach or suggest the additional requirements of these claims.

Claims 6, 20, and 33 depend from claims 1, 14, and 28 and further require generating the print job comprising a gray scale image and associating output appearance and printer attribute information with the print job for use in selecting one calibration file to use to calibrate the gray scale image when printing the print job.

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The Examiner cited col. 5, lines 1-32 of Lee as teaching the claim requirement of associating output appearance and printer attribute information with the print job for use in selecting one calibration file to use to calibrate the gray scale image when printing the print job. (Office Action, pgs. 8, 9, 11) Applicants traverse for the following reasons.

The cited col. 5 of Lee discusses printing patches of grey levels with a first printer, where a halftone screen with a known or given turn on sequence is utilized. The printed gray level of each patch is measured. The measured values for one printer are plotted. Thus, the cited col. 5 of Lee discusses measuring density of printed patches.

Nowhere does the cited Lee anywhere teach or suggest associating output appearance and printer attribute information with the print job for use in selecting one calibration file to use to calibrate the gray scale image when printing the print job. Instead, the cited Lee discusses measuring the density of printed patches, not the claim requirement of associating appearance and attribute information with a print job to use to select one calibration file to calibrate the gray scale image when printing the print job.

Accordingly, claims 6, 20, and 33 provide additional grounds of patentability over the cited art because the cited art does not teach or suggest the additional requirements of these claims.

Claims 7, 21, and 34 depend from claims 1, 14, and 28, respectively, and further require that selecting one calibration file comprises selecting one calibration file having associated output appearance and printer information indicating compatibility with the printer and output appearance information associated with the print job. The Examiner cited col. 9, lines 26-46 of Falk as teaching the additional requirements of these claims (Office Action, pgs. 8, 10, 12) Applicants traverse for the following reasons.

The cited col. 9 of Falk discusses how to combine the printer profile with color characterization profiles to generate calibration profiles from mapping CMYK data to calibrated C'M'Y'K' data. The calibration profiles are used during a print operation to format the CMYK image received from an input source prior to printing. The cited Falk further discusses using a scanner as a densitometer to measure the printer effects of each color plane to integrate with the

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color characterization profile. The calibration profile set is used to calibrate the input image prior to printing so that the printed image has a desired color characteristic despite the measured effects associated with a printer.

Thus, the cited Falk discusses how to calibrate an image. However, nowhere does the cited Falk anywhere teach or suggest selecting one calibration file to use for a print job having associated output appearance and printer information indicating compatibility with the printer and output appearance information associated with the print job. Nowhere does the cited Falk anywhere teach or suggest matching a calibration file output appearance and printer information with that associated with a print job to select the appropriate calibration file. Instead, the cited Falk discusses how an input image is calibrated with a calibration profile set.

Accordingly, claims 7, 21, and 34 provide additional grounds of patentability over the cited art because the cited art does not teach or suggest the additional requirements of these claims.

3. Claim 15 is Patentable Over the Cited Art

The Examiner rejected claim 15 as obvious over Falk, Wang and Gregory (U.S. Patent No. 5,818,960). Applicants traverse because claim 15 depends from claim 1, which is patentable over the cited art for the reasons discussed above.

Conclusion

For all the above reasons, Applicant submits that the pending claims 1-40 are patentable over the art of record. Applicants submit herewith a claim fee for claim amendments.

Nonetheless, should any additional fees be required, please charge Deposit Account No. 50-0563.

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The attorney of record invites the Examiner to contact him at (310) 553-7977 if the Examiner believes such contact would advance the prosecution of the case.

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